

Mineral Industry Surveys

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LEAD IN DECEMBER 2005

Domestic mine production, based on the net quantity of lead recovered from concentrate, was 37,900 metric tons (t) in December, according to the U.S. Geological Survey. This was an increase of about 10% compared with production in November 2005 and an increase of about 19% compared with that of December 2004. Secondary refined lead production (92,400 t) decreased about 4% compared with that of the previous month, and reported consumption (122,000 t) was unchanged compared with that of November. When compared with that of December 2004, secondary production was down by about 3% and reported consumption was up by about 3%.

According to Platts Metals Week published quotations, the average December North American producer price increased about 6%, from that of the previous month to 64.78 cents per pound and was also about 7% higher than the December 2004 price. The London Metal Exchange Ltd. (LME) cash price in December ranged from a low of \$1,065.50 per metric ton (December 1) to a high of \$1,155.50 per metric ton (December 13), and averaged \$1,123.51 per metric ton, about a 10% increase compared with the November average price and a 15% increase compared with the price in December 2004. During December, global LME lead stocks increased by 2,250 t to finish the month at 43,600 t.

In China, the Guangdong Provincial Bureau of Environmental Protection detected excessive cadmium in the Beijiang River. An investigation determined the Shaoguan Smelter was the cause of the pollution. On December 21, Shaoguan City ordered the smelter closed, along with 14 other small-to-medium-size factories, most of which are indium producers. The smelter has a capacity of 100,000 metric tons per year (t/yr) lead and 140,000 t/y zinc (Antaike, 2006b). In a related action, China's National Development and Reform Commission

(NDRC) is conducting a survey and an investigation of the lead and zinc industry, in hopes that policies will be developed to better guide the healthy and ordered development of this industry in terms of both environmental impact and worker safety (Antaike, 2006a).

Also in China, Heman-based Yuguang Gold and Lead plans to raise its production of refined lead to 280,000 t in 2006. The company finished 2005 producing at full capacity of approximately 200,000 t/yr (CRU International Ltd., 2006).

The development of lithium-ion batteries for use in Hybrid-Electric-Vehicles (HEV) were a focus at the 2006 North American Auto Show held in Detroit on January 10. Lithium-ion batteries, compared to traditional lead-acid batteries, have advantages in size, weight, and power-storage capacity (CRU International Ltd., 2006).

The National Defense Stockpile aggregated cash disposal (sale) of lead in December, under the monthly Basic Ordering Agreement DLA-Lead-005, was 3,060 t (3,370 short tons), with an approximate value of \$3.6 million (Defense National Stockpile Center, 2006).

References Cited

- Antaike, 2006a, Market Commentary—Highlights—NDRC surveying China's lead and zinc industry: Antaike, China Metal Market – Lead & Zinc, Tin Monthly, no. 110, January, p. 1-2.
Antaike, 2006b, Market Commentary—Highlights—Shaoguan Smelter's drainage system closed: Antaike, China Metal Market – Lead & Zinc, Tin Monthly, no. 110, January, p. 1-4.
CRU International Ltd., 2006, CRU Monitor—Lead—Industry Focus: CRU International Ltd., January, 12 p.
Defense National Stockpile Center, 2006, Stockpile announces lead BOA sales for December 2005: Fort Belvoir, VA, Defense National Stockpile Center news release, January 6, 1 p.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2004		2005		
	Year	January - December	November	December	January - December
Production:					
Mine (recoverable)	430,000	430,000	34,600 ^r	37,900	430,000
Primary refinery	NA	NA	NA	NA	NA
Secondary refinery:					
Reported by smelters/refineries	1,120,000	1,120,000	94,200	90,200	1,110,000
Estimated	11,300	11,300 ^r	951	911	11,200
Recovered from copper-base scrap ^c	15,000	15,000	1,250	1,250	15,000
Total secondary	1,140,000	1,140,000 ^r	96,400	92,400	1,140,000
Stocks, end of period:					
Primary refineries	NA	NA	NA	NA	NA
Secondary smelters and consumers	66,100	66,100	61,900	61,400	61,400
Imports for consumption:					
Ore and concentrate	3	3	--	NA	29 ²
Refined metal	197,000	197,000	28,400	NA	273,000 ²
Consumption:					
Reported	1,480,000	1,480,000 ^r	122,000	122,000	1,460,000
Undistributed ^c	45,700	45,700 ^r	3,770	3,780	45,300
Total	1,520,000	1,520,000 ^r	126,000	126,000	1,510,000
Exports:					
Ore and concentrate	292,000	292,000	19,400	NA	379,000 ²
Bullion	129	129	34	NA	176 ²
Wrought and unwrought lead	82,400	82,400	8,140	NA	57,200 ²
TEL/TML preparations, based on lead compounds	1,020	1,020	5	NA	1,240 ²
Exports (gross weight): Scrap	56,300	56,300	5,650	NA	62,200 ²
Platts Metals Week North American producer price (cents per pound)	55.14	55.14	60.86	64.78	61.03

^cEstimated. ^rRevised. NA Not available. -- Zero.

¹Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

²Includes data for January - November only; December data were not available at time of publication.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
2004:				
December	60.73	974.39	505.22	1.928639
Year	55.14	885.95	483.26	1.832475
2005:				
October	60.82	1,004.17	568.91	1.765090
November	60.86	1,017.91	586.72	1.734910
December	64.78	1,123.51	643.55	1.745805

Source: Platts Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP¹

(Metric tons, gross weight)

Item	Stocks	Net	Consumption	Stocks
	November 30, 2005	receipts		December 31, 2005
Battery-lead	19,100	86,500	85,700	19,900
Soft lead	W	W	W	W
Drosses and residues	W	W	W	W
Other ²	8,120	5,180	5,230	8,060
Total	27,200	91,700	90,900	28,000
Percent change from preceding month	XX	-4.8	-4.9	2.9

W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 4
LEAD, TIN, AND ANTIMONY RECOVERED FROM
LEAD-BASE SCRAP IN DECEMBER 2005¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	67,100	--	--
Remelt lead	W	--	--
Antimonial lead	22,800	(2)	(2)
Other ³	377	(2)	(2)
Total lead-base	90,200	142	288

W Withheld to avoid disclosing company proprietary data; included in "Other."
-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Withheld to avoid disclosing company proprietary data; included in "Total."

³Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5
CONSUMPTION OF LEAD IN THE UNITED STATES¹

(Metric tons, lead content)

Use	2004		2005		
	Year	January - December	November	December	January - December
Metal products:					
Ammunition, shot and bullets	61,500	61,500	4,850	4,850	60,000
Brass and bronze, billet and ingots	4,190	4,190	372	337	3,700
Cable covering, power and communication and cabling lead, building construction	5,540	5,540	467	547	6,840
Casting metals	17,900	17,900	1,490	1,500	17,900
Sheet lead, pipes, traps and other extruded products	32,400	32,400	2,730	2,680	32,700
Solder	7,440	7,440	533	518	7,130
Storage batteries, including oxides	1,290,000	1,290,000	107,000	107,000	1,280,000
Terne metal, type metal, and other metal products ²	1,770	1,770	185	185	2,210
Total metal products	1,420,000	1,420,000	117,000	118,000	1,410,000
Other oxides and miscellaneous	59,600	59,600	4,650	4,640	56,400
Total reported	1,480,000	1,480,000	122,000	122,000	1,460,000
Undistributed ^c	45,700	45,700	3,770	3,780	45,300
Grand total	1,520,000	1,520,000	126,000	126,000	1,510,000

^cEstimated.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

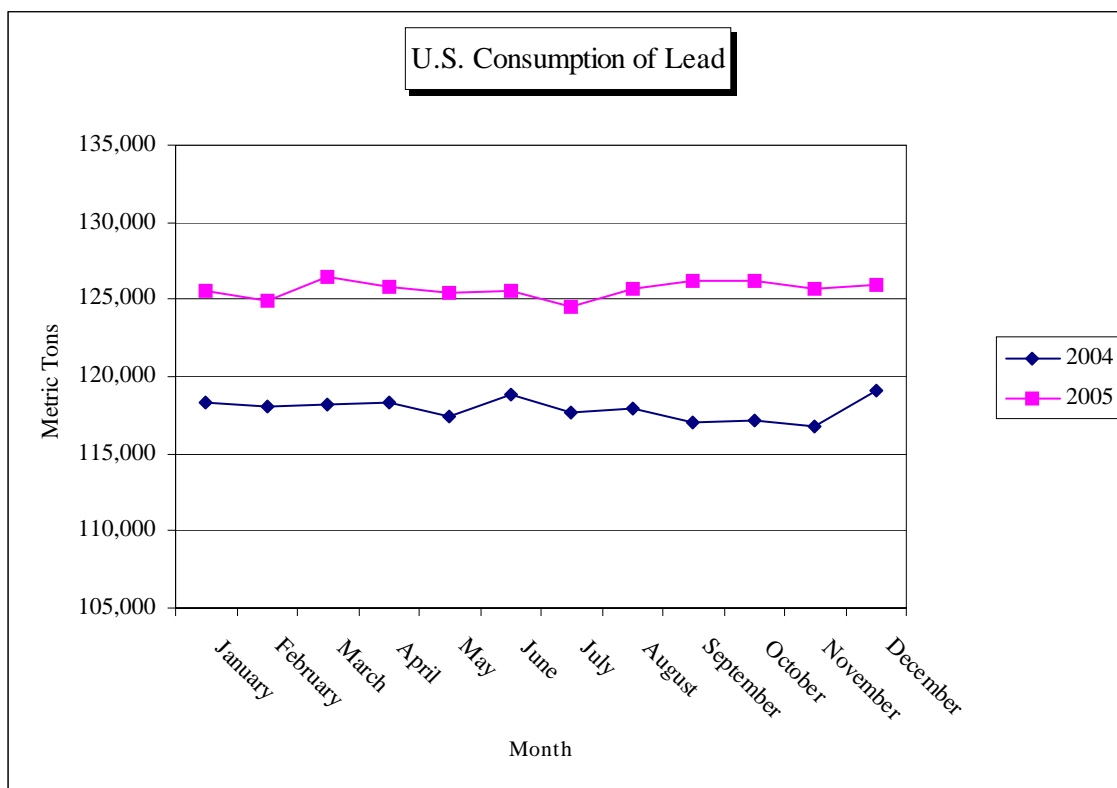


TABLE 6
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS,
AND CONSUMPTION OF LEAD¹

(Metric tons, lead content)

Type of material	Stocks		Consumption	Stocks December 31, 2005
	November 30, 2005	Net receipts		
Soft lead	33,700	66,000	66,200	33,400
Antimonial lead	12,100	35,800	36,100	11,900
Lead alloys	W	W	W	W
Copper-base scrap	W	W	W	W
Total	61,900	121,000	122,000	61,400

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 7
U.S. EXPORTS OF LEAD, BY CLASS¹

(Metric tons)

	2004		2005		
	November	Year	October	November	January - November
Lead content:					
Ore and concentrates	13,100	292,000	9,640	19,400	379,000
Bullion	22 ^r	129	7	34	176
Materials excluding scrap	6,390	82,400	5,600	8,140	57,200
TEL/TML preparations, based on lead compounds	113	1,020	99	5	1,240
Total	19,600	375,000	15,400	27,600	437,000
Gross weight: Scrap	5,140	56,300	5,330	5,650	62,200

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN¹

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	2004		2005			2004		2005		
	Year	January - November	October	November	January - November	Year	January - November	October	November	January - November
Base bullion:										
Canada	--	--	--	--	18	--	--	--	--	18
Mexico	3	3	--	--	--	3	3	--	--	--
Other	--	--	--	--	10	--	--	--	--	10
Total	3	3	--	--	29	3	3	--	--	29
Pigs and bars:										
Australia	--	--	--	500	19,300	13,700	13,700	6,130	626	39,600
Canada	166,000	149,000	15,200	21,000	172,000	166,000	149,000	15,200	21,000	172,000
Mexico	8,810	8,480	1,970	1,080	14,200	8,810	8,480	1,970	1,080	14,200
Peru	7,270	4,790	1,460	4,890	22,400	7,270	4,790	1,460	4,890	22,400
Other	1,310	1,280 ^r	3,490	236	24,200	1,450	1,410 ^r	3,490	838	24,800
Total	183,000	163,000	22,100	27,700	252,000	197,000	177,000	28,200	28,400	273,000
Grand total	183,000	163,000	22,100	27,700	252,000	197,000	177,000	28,200	28,400	273,000

^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.